

Sub D2  
Sub J1  
B2  
cont  
Sub D3  
Sub J1  
Claim 41. (Once Amended) The method of claim 40, wherein antibiotic therapy is initiated and a diagnostic work-up for the illness, comprising obtaining a blood culture from the infant, is provided when the at least one characteristic abnormality is identified.

Claim 42. (Once Amended) The method of claim 40, wherein the illness is necrotizing enterocolitis.

Claim 43. (Once Amended) The method of claim 42, wherein a diagnostic work-up for the illness, comprising an X-ray of the infant or a pathological specimen from the infant, is provided when the at least one characteristic abnormality is identified.

Claim 44. (Once Amended) The method of claim 40 wherein the illness is selected from the group consisting of pneumonia, sepsis, and meningitis.

Claim 45 (Once Amended) The method of claim 68, wherein the data set is normalized.

Claim 46. (Once Amended) The method of claim 45, wherein the data set contains on the order of about  $10^3$  to  $10^4$  sequential RR intervals.

Sub D4  
Claim 47. (Once Amended) The method of claim 45, wherein the at least one characteristic abnormality is identified based on at least one of the third and higher moments of the data set.

Sub J1  
Claim 48. (Once Amended) The method of claim 47, wherein the at least one moment of the data set includes the skewness of the data set.

Claim 49. (Once Amended) The method of claim 48, wherein the illness is sepsis or necrotizing enterocolitis.

Sub J1  
Claim 50. (Once Amended) The method of claim 47, wherein the at least one moment of the data set includes the kurtosis of the data set.

Claim 51. (Once Amended) The method of claim 50, wherein the illness is sepsis or necrotizing enterocolitis.

32  
cor D57  
Sub J1  
Claim 52. (Once Amended) The method of claim 45, wherein the at least one characteristic abnormality is identified based on at least one percentile value of the data set.

Sub J1  
Claim 53. (Once Amended) The method of claim 52, wherein the at least one percentile value is the 10<sup>th</sup> percentile value.

Sub J1  
Claim 54. (Once Amended) The method of claim 53, wherein the illness is sepsis or necrotizing enterocolitis.

Sub D67  
Claim 55. (Once Amended) The method of claim 45, wherein the at least one characteristic abnormality is identified based on the variance, standard deviation or coefficient of variation of the data set.

Sub J1  
Claim 56. (Once Amended) The method of claim 55, wherein the illness is sepsis or necrotizing enterocolitis.

Sub J1  
Claim 57. (Once Amended) The method of claim 48, further comprising a diagnostic work-up.

Claim 58. (Once Amended) The method of claim 50, further comprising a diagnostic work-up.

*Sub  
J1* Claim 59. (Once Amended) The method of claim 53, further comprising a diagnostic work-up.

Claim 60. (Once Amended) The method of claim 55, further comprising a diagnostic work-up.

*D2 Sub  
cat D7* Claim 61. (Once Amended) The method of claim 39, wherein a diagnostic work-up is provided when the at least one characteristic abnormality is identified.

*Sub  
J1* Claim 62. (Once Amended) The method of claim 39, wherein the infant is a neonate.

Claim 64. (Once Amended) The method of claim 63, wherein the moments include the third moment of the data set.

*D3  
Sub  
J1* Claim 65. (Once Amended) The method of claim 63, wherein the moments include the fourth moment of the data set.

Claim 66. (Once Amended) The method of claim 63, wherein the percentile values include the 10<sup>th</sup> data percentile value.

Claim 67. (Once Amended) The method of claim 63, wherein the infant is a neonate.